

ABSTRACT

The purpose of the present invention is to provide a diabody-type bispecific antibody, which is characterized by having low immunogenicity and high infiltrating activity into tumor tissues, and by being easily mass-produced at a low cost with use of microorganisms, and by being easily altered in function by means of genetic engineering. The diabody-type bispecific antibody shows a more remarkable effect than the conventional diabody-type bispecific antibodies and chemically synthesized bispecific antibodies even in a very low concentration and in the absence of the super antigen.

The present invention is related to a diabody-type bispecific antibody, having a first specificity to a human epidermal growth factor (EGF) receptor and a second specificity to a surface antigen expressed by a cell having phagocytosis or cytotoxic activity, a single-chain polypeptide constituting the antibody or each region contained therein, a nucleic acid encoding the polypeptide, a replicable cloning vector or expression vector comprising the nucleic acid, a host cell transformed with the vector, and a pharmaceutical preparation comprising thereof.